

FIG. 1

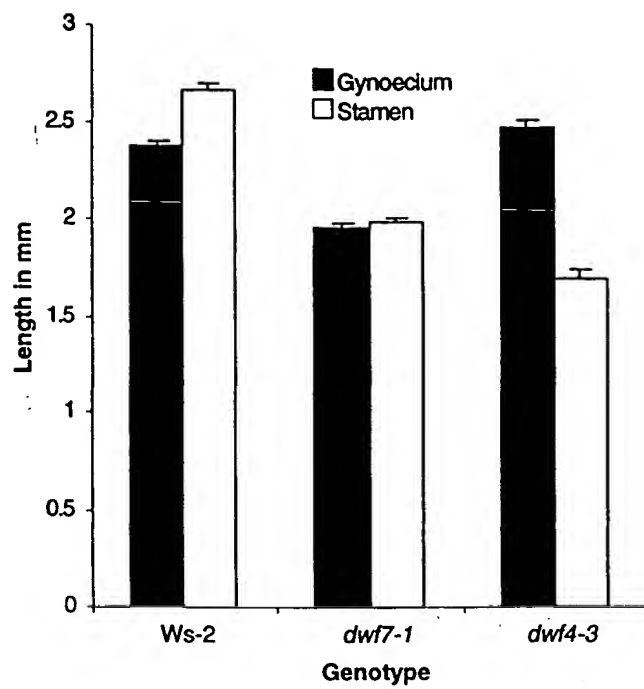


FIG. 2

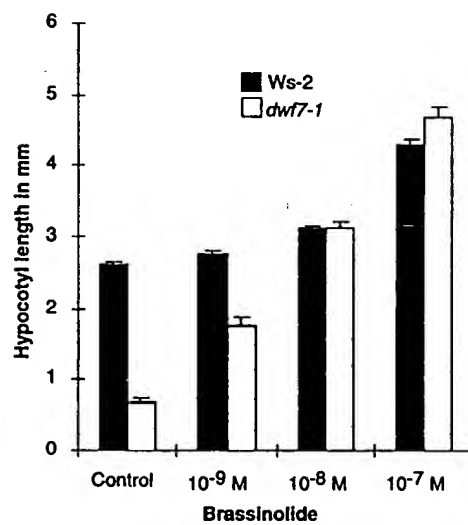


FIG. 3

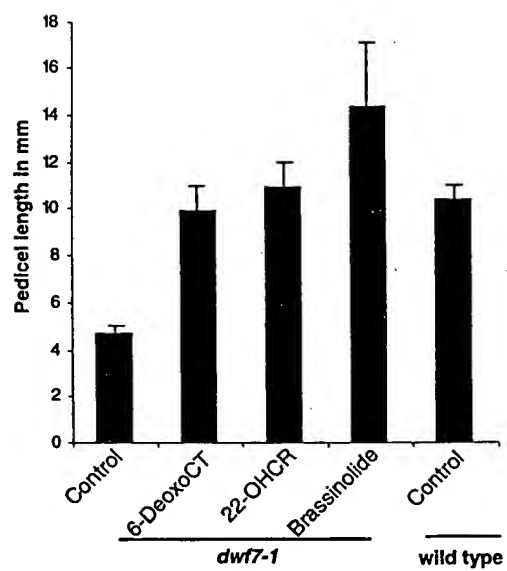


FIG. 4

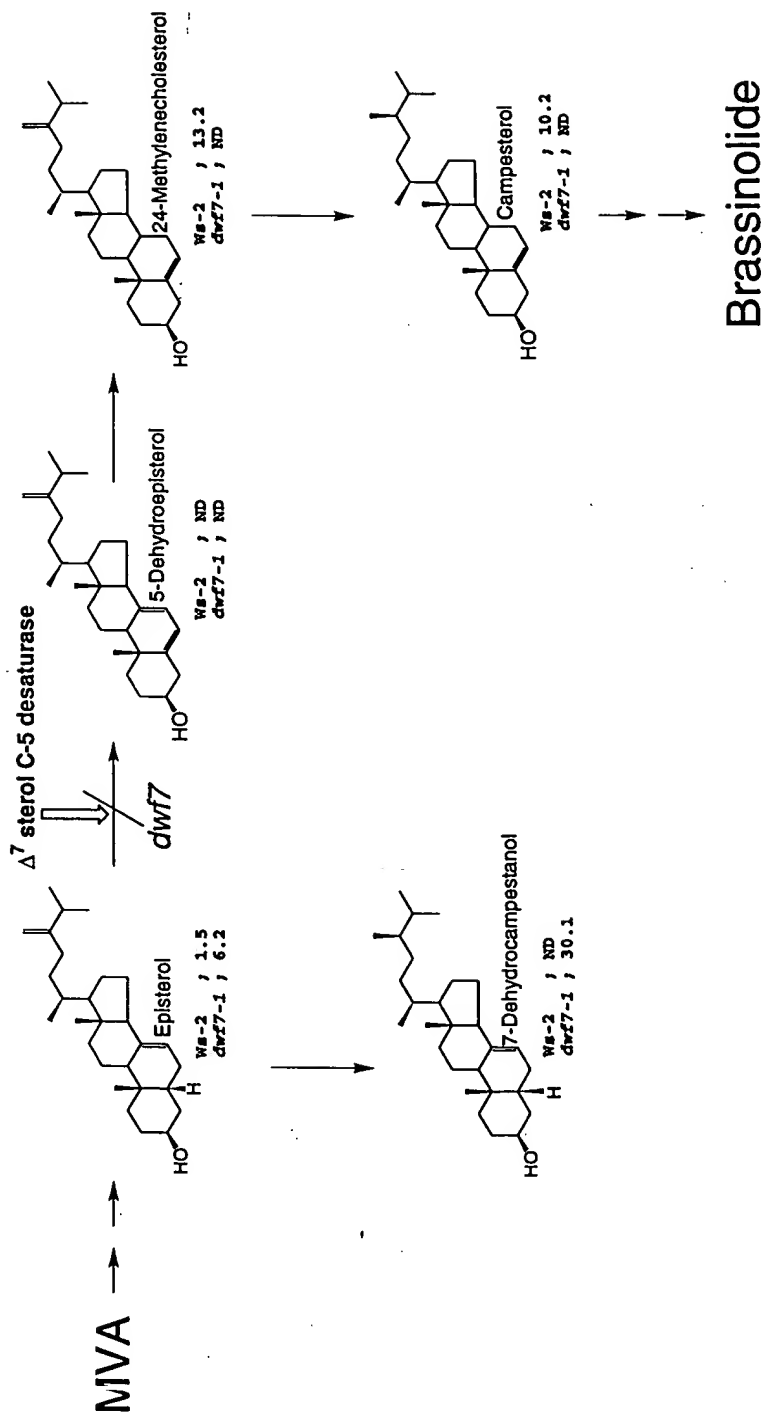


FIG. 5

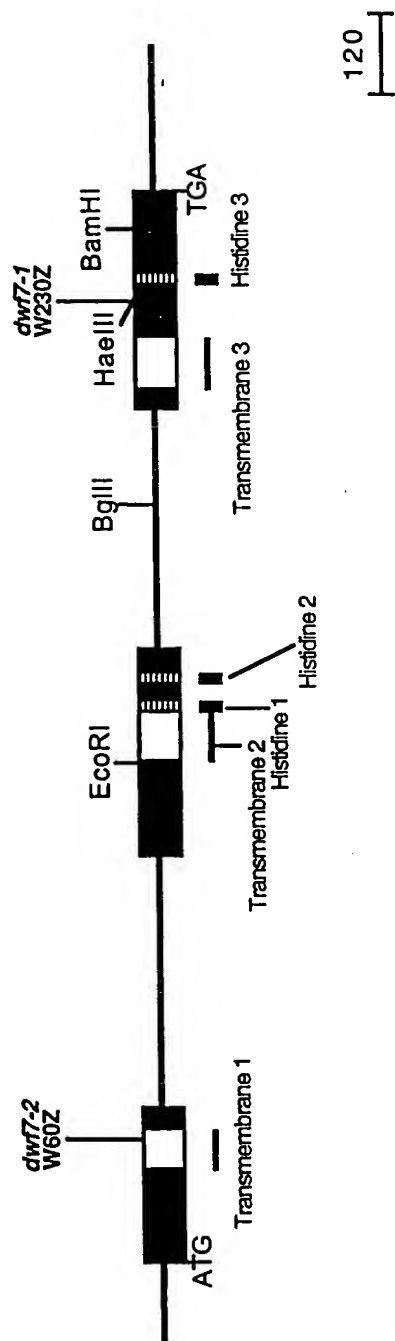


FIG. 6

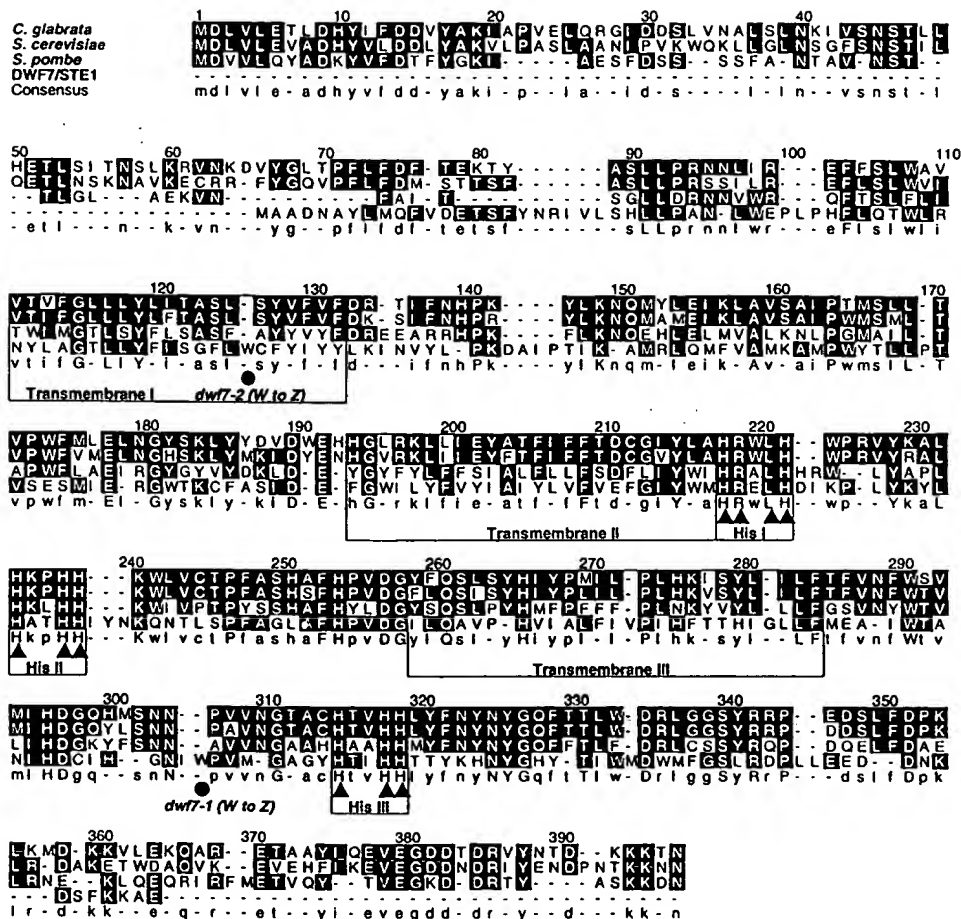


FIG. 7

10 20 30 40
GAAGATCGATCAATCAATCATCAAACCTCTGTGTGCCAC

50 60 70 80 90 100
41 ATGCATTAAT ACTGTTGACT TGTTCATTA ACCTAAGTA ACATCAATCC CGCGATCTT

110 120 130 140 150 160
101 CTTTCGTTT CCGCCACCGA TCTCGGTGA TCTCCGATC ACATGCCCGC CGATATGCT

M A A D N A

170 180 190 200 210 220
161 TATCTGATCC AGTTTGTGA CCAACCTCT TTTTACACC GAATCGTTCT GATCATCTT

Y L M Q F V D E T S F Y N R I V L S H L

230 240 250 260 270 280
221 TTGCGGCGCA ATCTATGGA ACCCTTACCT CATTTCTCC ACACATGCT CCGAATTAC

L P A N L W E P L P H F L Q T W L R N Y

290 300 310 320 330 340
281 CTCGCCGGA CCCTACTATA CTTTATCTCC GGTTCCTCT GGTGCTTCTA CATCTATTAC

L A G T L L Y F I S G F L W C F Y I Y Y



350 360 370 380 390 400
341 CTAAATCA ACCTTACCT TCCCAAGCT CTCGCTTTC ACTTTGTAT TCATATTGC

L K I N V Y L P K

410 420 430 440 450 460
401 TTAATCGCT TCTATGTAT CGATTTTCA ATTACGCA GACCGTTTCT TCGTACTG

470 480 490 500 510 520
461 TACAGTAAT TCGATTGAT CTGGATGCT CATGTTGCA TTTATGAT ATTGTGCA

530 540 550 560 570 580
521 ATTCTCCATC TACCGATTG AACCTTACT GGTATATA ACTTTTGT CACCAATCA

590 600 610 620 630 640
501 CAAGTCGTAC ATCTTTCAG TCAATTTTC TACTGCCAT TTAGTCCAC TTAATGCT

FIG. 8A

650 660 670 680 690 700
 641 TGTGAGTG ATTGTCTACT TTCAGACACA TTCITTTTCT GCTTCTCTGA CACTCTGTCT
 710 720 730 740 750 760
 701 TAGTTTGAAA TCTTTTGG TCTGTTTGC TTCAGATCCA ATTCTTACAA TAAGGCTAT
 770 780 790 800 810 820
 761 CCGTTTGCAA ATGTTTCTGG CAATGACGCC TATGCCATCG TACACTCTTC TTCCACTGT
 830 840 850 860 870 880
 821 CTCCGAGCT ATGATTGAC GTGGTGGAC CAATGTTTT GCTAGCATAG ACCAATTCGG
 890 900 910 920 930 940
 881 CTGGATTCTG TATTTTCTTT ACATGCCAT CTATCTTGTI TTCGTTGACT TTGTTATTA
 950 960 970 980 990 1000
 941 TTGGATGCAC AGACGCTTC ATGACATTAA CCTCTCTAT AGTATCTCC ATGCCACCA
 1010 1020 1030 1040
 1001 TCATATCTAC AACACCCACA ATACACTCTC TCCATTTCG C
 H I L Y F V Y I A I Y L V F V E F G I Y
 W M H R E L H D I K P L Y K Y L H A T H
 H I Y N K Q N T L S P F A

FIG. 8B

1050 1060 1070 1080
 CTAAGTCTT TTGAGTTTGT TCTTCTTAC TTCTGTAAA

1090 1100 1110 1120 1130 1140
 1081 AGATTGGTAG CATTTAGTTT CITACACAA AAGACTTTGT CACCACTCC TTGACTCCA

1150 1160 1170 1180 1190 1200
 1141 ATCAGATT TTGATTCCTT ATCCATAAG TACCCAGAA GGCTAGATT ATATAATT

1210 1220 1230 1240 1250 1260
 1201 CAGCTGATT ACITCATA TCTCAGAG ACTTCTACT TACCCAGCT TTGATCTTT

1270 1280 1290 1300 1310 1320
 1261 GTCTTCTCT TCTGCTCC GACTGATCG AATCAGAG AACTTCTTT ATCTACTCC

1330 1340 1350 1360 1370 1380
 1321 CTGGAGCTA TCTTGTAA TCCAGGATG TGACATCTA TATTACTGT AACTCCTTA

1390 1400 1410 1420 1430 1440
 1381 CGTTTTGTT TACAGGCTT GCATTTACC CAGTAGCGG CATACTTCAG GCTGACCGC

1450 1460 1470 1480 1490 1500
 1441 ATGTGATAC GCTGTTATA GTCCGATTC ATTTCAGAC TCATATAGCT CTTTGTCTA

1510 1520 1530 1540 1550 1560
 1501 TGGAGCGAT ATGACGGCG AATATCCATG ACTGATCCA TGGCAGATC TGGCCAGTA

1570 1580 1590 1600 1610 1620
 1561 TGGCTGACG ATACCATAC ATACCCACA CGACATACA GATTAATAT GTCATTATA

CLAFHPVDGILQAVP

HVIALFI VPI HFTT HIGLLF

HERI WTA NIH DCIH GNI WPV

HGAGYHT IHH TTYK HNY GHY

FIG. 8C

1630 1640 1650 1660 1670 1680
 1621 CCATATGGAT CCATTCGATG TTGGCTCTC TTAGGGATCC TCTTTAGAA GAAGATGACA
 T I M H D M H F G S L R D P L L E E D D
 1690 1700 1710 1720 1730 1740
 1681 ACAAACACAC CTTCACAAA GCAGAGTCAG AATGCCCACT TCGTTTTGT TCTTCTGTT
 N K D S F K K A E
 1750 1760 1770 1780 1790 1800
 1741 TCTCTGTGT TCTTCTGTT CAAAGTTCA GCTTCTCTG TCTTTTTCT TCTTCTCTT
 1810 1820 1830 1840 1850 1860
 1881 ATTATGTGT CTCTCTCAC CTTCACATT ATATTCTAC AACATTTCG TGTCTAGTT
 1870 1880 1890
 1861 AAACATGTA AATCTTTGAT GATCTTTGCA

FIG. 8D

10 30 50
 GTTTGGTATTTATTGGATGCACAGAGAGCTTCATGACATTAAGCCTCTCTATAAGTATCT
 CAAACCATAAATAACCTACGTGTCTCTCGAAGTACTGTAATTCGGAGAGATATTCATAGA
 70 90 110
 CCATGCCACCCATCATATCTACAACAAGCAGAATACACTCTCTCCATTTGCCGGTAAGTG
 GGTACGGTGGGTAGTATAGATGTTGTTCTTATGTGAGAGAGGTAAACGGCCATTAC
 130 150 170
 TTTTCAGTTTGGTTCTTCTTTAGTTCTTGTAAGATTGGTAGCATTTAGTTTCTTACCAG
 AAAAGTCAAACAAGAAGAAATCAAGAACATTTTCTAACCATCGTAAATCAAAGAATGGTC
 190 210 230
 AAAAGACTTTGTGTCAGCAGCTGCTTGTACTCCAAATCACATTTTGCATTCTTATCCATAA
 TTTTCTGAAACAGTCGTCGACGAACATGAGGTTTAGTGTAACGTAAGGAATAGGTATT
 250 270 290
 AGTAACCAGAAAGGCTAGAAATTATATAAATGTCAGCTGCATTACTTCACATATGTCAGAG
 TCATTGGTCTTTCCGATCTTAATATATTTACAGTCGACGTAATGAAGTGTATACAGTCTC
 310 330 350
 AGACTTCTGACTTAACCAGAGTTTAGATCTTTGTGTTTCTTCTGCTCGGACTGATT
 TCTGAAGACTGAATTGGTCTCAAATCTAGAAACACAAAGAGAAGACCAGAGCCTGACTAA
 370 390 410
 GGAAATGACGAGAAGTTCTTTTATCTACTTCCCTGGAGTGTATCTTGGTTAATCCAAGGA
 CCTTTACTGCTCTTCAAGAAAATAGATGAAGGGACCTCACATAGAACCAATTAGGTTCTC
 430 450 470
 TGTGACATCTAAATATTACTTGTAACCTCCTTACGTTTTTGTGTTTACAGGGCTTGCATTCA
 AACTGTAGATTTATAATGAACATTGAAGGAATGCAAAAACAAATGTCCCGAACGTAAGT
 490 510 530
 CCCAGTAGACGGGATACTTAAGGCTGTACCGCATGTGATAGCGCTGTTATAGTGCCAATT
 GGGTCATCTGCCCTATGAATTCCGACATGGCGTACACTATCGCGACAATATCACGGTTAA
 550 570 590
 CATTTCACAACTCATATAGGTCTTTTGTTCATGGAAGCGATATGGACGGCGAACATCCAT
 GTAAAGTGTGAGTATATCCAGAAAACAAGTACCTTCGCTATACCTGCCGCTTGTAGGTA

FIG. 10A

610 630 650
 GACTGCATCCATGGCAACATCTGGCCAGTAATGGGTGCAGGATACCATACGATACACCAC
 CTGACGTAGGTACCGTTGTAGACCGGTCAATACCCACGTCCTATGGTATGCTATGTGGTG
 670 690 710
 ACGACATACAAGCATAACTATGGTCATTATAACCATATGGATGGATTGGATGTTTGGCTCT
 TGCTGTATGTTTCGTATTGATACCAGTAATATGGTATACCTACCTAACCTACAAACCGAGA
 730 750 770
 CTTAGGGATCCTCTCTTAGAAGAAGATGACAACAAAGACAGCTTCAAGAAAGCAGAGTGA
 GAATCCCTAGGAGAGAATCTTCTTCTACTGTTGTTTCTGTCTGAAGTTCTTTCGTCTCACT
 790 810 830
 GAATGCCCACTTGGGTTTTGTTCTTCTGTTTTGTCTTGTGTTGTTGTTGTTCAAAGTTTC
 CTTACGGGTGAACCCAAAACAAGAAGACAAAACAGAACACAACAACAAGTTTCAAAG
 850 870 890
 AGCCTTTCTTGTTCTTTTTCTTCTTCTTCTTATTTCATGTGTCTCTCTCAACCTTTCCAAT
 TCGGAAAGAACAAGAAAAGAAGAAGAATAAGTACACAGAGAGAGTTGGAAAGGTTA
 910 930 950
 TATATTGTTACAAACATTTGCTGTCTAGTTTAAAACATGTAAATGTTTGATGATCTTTGC
 ATATAACAATGTTTGTAACGACAGATCAAATTTGTACATTTACAACTACTAGAAACG
 970 990 1010
 AAGACTCCATTTTTGTTTAAAGGTAAACCTTGAATCTCATAGATTGTCGATTGTTGGTATT
 TTCTGAGGTAAAAACAAATTCATTTGGAAGTTAGAGTATCTAACAGCTAACACCATAA
 1030 1050 1070
 TCCATTTTTCAGGTACGGTTCTGTAGACTGTAGTCTTGCTGACCAGTCCGGCTTAACCACC
 AGGTAAAGTCCATGCCAAGACATCTGACATCAGAACGACTGGTCAGGCCGAATTGGTGG
 1090 1110 1130
 CCAAATTTCAAAGATCTCAcCAATCAAAATGCTGGCTGGCCCCAATATATAGATGGGCCA
 GGTTTAAAGTTTCTAGAGTgGTTAGTTTTACGACCGACCGGGTTATATATCTACCCGGT
 1150 1170 1190
 GTTAATCCGTCTAGCTTTACTCTTTAGACCTACCTTAGACAGTTAGACACCTGCTAATTA
 CAATTAGGCAGATCGAAATGAGAAATCTGGATGGAATCTGTCAATCTGTGGACGATTAAT

FIG. 10B

| | | |
|--|------|------|
| 1210 | 1230 | 1250 |
| ATGAGTTTCCTTTTCTTGTTTCAGCAAGTTACCTGTGTTACTTGAGAGTTGAGTTAATGG TACTCAAAGGAAAAAGAACAAGTCGTTCAATGGACACAATGAACTCTCAACTCAATTACC | | |
| 1270 | 1290 | 1310 |
| TAGTAAACGCAATTTAACCCTTATAAGTTTAATCGTATTCAACGAATGACCCAGAGACTT ATCATTGCGTTAAATTGGGAATATTCAAATTAGCATAAGTTGCTTACTGGGTCTCTGAA | | |
| 1330 | 1350 | 1370 |
| TAAATAAATCCATCGTAACCCTCCACTTCAAAATTCTTTTTAAAAAGTAGCAAATCATT ATTTATTTAGGTAGCATTGGGAGGTGAAGTTTTAAGAAAAATTTTCATCGTTTAGTAAA | | |
| 1390 | 1410 | 1430 |
| AAATATTGTAAGTTTGCTTCATTTCGAAATTGTAGCTACAGATCTCAAAGCTCCTCCTGTT TTTATAACATTCAAACGAAGTAAGCTTTAACATCGATGTCTAGAGTTTCGAGGAGGACAA | | |
| 1450 | 1470 | 1490 |
| GGCCATATCTCTCTCTAACAAACGCATAGTAACACTTGACCACAGTTTGACTTCTCGGCG CCGGTATAGAGAGAGATTGTTTTGCGTATCATTGTGAAGTGGTGTCAAAGTGAAGAGCCGC | | |
| 1510 | 1530 | 1550 |
| GTTTCATGGCGGCGACTATGGCAGATTATAATGATCAGATCGTCAATGAGACCTCTTTTT CAAAGTACCGCCGCTGATACCGTCTAATATTACTAGTCTAGCAGTTACTCTGGAGAAAAA M A A T M A D Y N D Q I V N E T S F Y | | |
| 1570 | 1590 | 1610 |
| ACAACCGAAtGGTTCTGAGTCACCTTTTGCCGgTGAATCTATGGGAACCTTTACCaCATT TGTTGGCTTaCCAAGACTCAGTGGAAAACGGCcACTTAGATACCCTTGGAATGGtGTAA N R M V L S H L L P V N L W E P L P H F | | |
| 1630 | 1650 | 1670 |
| TCCTCCAGACATGGCTCCGGAACCTCGCCGGAACATACTCTACTTCATCTCCGGCT AGGAGGTCTGTACCGAGGCCTTGATGGAGCGGCCTTTGTATGAGATGAAGTAGAGGCCGA L Q T W L R N Y L A G N I L Y F I S G F | | |
| 1690 | 1710 | 1730 |
| TCCTCTGGTGCTTCTACATCTATTACCTTAAACTCAACGTTTACGTCCCCAAAGGTTACT AGGAGACCACGAAGATGTAGATAATGGAATTTGAGTTGCAAATGCAGGGGTTTCCAATGA L W C F Y I Y Y L K L N V Y V P K | | |

FIG. 10C

| | | |
|--|------|------|
| 1750 | 1770 | 1790 |
| TTTTTCAATTTTCGATGTTCTGTTTTGAAACCTTTCTTTTGTTGATTCCCTTCGATTGTATC AAAAAGTTAAAGCTACAAGACAAAACCTTTGGAAAGAAAACAACCTAAGGAAGCTAACATAG | | |
| 1810 | 1830 | 1850 |
| GCCTGATAGATTGTGTTATACGTTAACCTTTTTTCTTACTGTTACTTTTCAGTTCTTGTC CGGACTATCTAACACAATATGCAATTGGAAAAAAGAATGACAATGAAAGTCAAGAACAG | | |
| 1870 | 1890 | 1910 |
| TTCTACTTCTCATTTAATTAGTTTTAAAGTTTTAATATTTTTGGCTAATCCACATTTTTTTA AAGATGAAGAGTAAATTAATCAAAATTTCAAATTATAAAAACCGATTAGGTGTAAAAAT | | |
| 1930 | 1950 | 1970 |
| AGTTGAATCTTCCATGAAATTTGAGCTCAAAATATACCATGAAATTGAAATTTGTGGTTC TCAACTTAGAAGGTACTTTAACTCGAGTTTTATATGGTACTTTAACTTTAAACACCAAG | | |
| 1990 | 2010 | 2030 |
| TTAGTTCTATTTCTTGCTTGGTTTTCTTCTATTTTTGTGGTTAGAATCCATTCCCTACGAGA AATCAAGATAAAGAACGAACCAAAGAAGATAAAAAACACCAATCTTAGGTAAGGATGCTCT E S I P T R | | |
| 2050 | 2070 | 2090 |
| AAGGCAATGCTTTTTGCAAATATACGTGGCAATGAAGGCTATGCCTTGGTACACTCTTCTT TTCCGTTACGAAAACGTTTATATGCACCGTTACTTCCGATACGGAACCATGTGAGAAGAA K A M L L Q I Y V A M K A M P W Y T L L | | |
| 2110 | 2130 | 2150 |
| CCAGCTGTCTCTGAGTATATGATCGAGCATGGTTGGACCAAATGTTACTCTACACTTGAC GGTCGACAGAGACTCATATACTAGCTCGTACCAACCTGGTTTACAATGAGATGTGAACTG P A V S E Y M I E H G W T K C Y S T L D | | |
| 2170 | 2190 | 2210 |
| CATTTCAACTGGTTCCTCTGTTTCCTCTACATAGCTCTCTATCTTGTTTTAGTTGAGTTt GTAAAGTTGACCAAGGAGACAAAGGAGATGTATCGAGAGATAGAACAAAATCAACTCAa H F N W F L C F L Y I A L Y L V L V E F | | |
| 2230 | 2250 | 2270 |
| ATGATTTATTGGGTTTCACAAAGAGCTTCATGACATTAAATTTCTCTATAAGCATCTCCAT TACTAAATAACCCAAGTGTTTCTCGAAGTACTGTAATTTAAAGAGATATTCGTAGAGGTA M I Y W V H K E L H D I K F L Y K H L H | | |

FIG. 10D

2290 2310 2330
 GCTACCCATCATATGTACAACAAGCAAAACACACTCTCTCCATTTGCCGGTATGTCAAAG
 CGATGGGTAGTATACATGTTGTTTCGTTTTGTGTGAGAGAGGTAAACGGCCATACAGTTTC
 A T H H M Y N K Q N T L S P F A
 2350 2370 2390
 CTATATGTTCTCAATCTAAATTCAAGAGCTTGTATCAATGGTGACTTCTTTACTTGATGT
 GATATACAAGAGTTAGATTTAAGTTCTCGAACATAGTTACCACTGAAGAAATGAAGTACA
 2410 2430 2450
 TTTTCGGGTTTTTCAGGGCTCGCATTCCATCCGCTGGACGGGATACTTCAGGCTATACCGC
 AAAAGCCCCAAAAGTCCCGAGCGTAAGGTAGGCGACCTGCCCTATGAAGTCCGATATGGCG
 G L A F H P L D G I L Q A I P H
 2470 2490 2510
 ACGTGATAGCGCTGTTTATAGTGCCGATTTCATCTCATAACACATCTGAGTCTTTTGT
 TGCATATCGCGACAAATATCACGGCTAAGTAGAGTATTGTGTAGACTCAGAAAACAAA
 V I A L F I V P I H L I T H L S L L F L
 2530 2550 2570
 TGGAAGGGATATGGACAGCAAGCATCCATGATTGCATACATGGtAACATCTGGCCTATAA
 ACCTTCCCTATACCTGTCGTTTCGTAGGTACTAACGTATGTACCATTGTAGACCGGATATT
 E G I W T A S I H D C I H G N I W P I M
 2590 2610 2630
 TGGGTGCAGGATACCATAACCATAACCATAACAACATAACAAGCATAACTATGGTCATTATa
 ACCCACGTCCTATGGTATGGTATGTGGTATGTTGTATGTTTCGTATTGATACCAGTAATat
 G A G Y H T I H H T T Y K H N Y G H Y T
 2650 2670 2690
 CCATATGGATGGaCTGGATGTTTGGCTCTCTTATGGTTCCTTTAGCAGAAAAAGACAGTT
 GGTATACCTACCTGACCTACAAACCGAGAGAATACCAAGGAAATCGTCTTTTTCTGTCAA
 I W M D W M F G S L M V P L A E K D S F
 2710 2730 2750
 TCAAGGAGAAAGAAAAGTGAGAATGTTCAATGCTCACATGTATTCTTCATATGTTGCTCT
 AGTTCCTCTTTCTTTTCACTCTTACAAGTTACGAGTGTACATAAGAAGTATACAACGAGA
 K E K E K *
 2770 2790 2810
 TCTCGTGA CTCTTATTAAACCTTTCTAATCACTTTGGTGGAATTAAAAACATGACTGCA
 AGAGCACTGAGAATAATTTTGGAAAGATTAGTGAAACCACCTTAATTTTTGTACTGACGT

FIG. 10E

2830 2850 2870
TAATTTGATGCAAAGTTTCAGACTTTTATTGCTAAAAATCTCTGATGATTATTAACCTCA
ATTAAACTACGTTTCAAAGTCTGAAAATAACGATTTTTAGAGACTACTAATAATTGGAGT
2890 2910
ATTATATAATTGcTGGATGAAGAGTTCAAATTTGGACTAAATCTG
TAATATATTAACgACCTACTTCTCAAGTTTAAACCTGATTTAGAC

FIG. 10F

